

FEB 11 1987

**DRAFT**

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Permit Number WA-003086-4

Issuance Date :

Expiration Date:

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3/19/87

LDWSF

12.3.55v1

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
WASTE DISCHARGE PERMIT

State of Washington  
DEPARTMENT OF ECOLOGY  
Olympia, Washington 98504

In compliance with the provisions of  
Chapter 90.48 Revised Code of Washington as Amended  
and  
The Federal Water Pollution Control Act as amended  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 et. seq.

Marine Power and Equipment Co., Inc.  
1441 N. Northlake Way  
Seattle, Washington 98103

Plant Location:

1441 N. Northlake Way  
Seattle, Washington 98103

Receiving Water:

Lake Union  
Lake Class

Industry Type:

Ship building, repair  
and conversions

Discharge Location:

Latitude: 47° 38' 50" N

Longitude: 122° 21' 55" W

Water Segment Number:

04-08-01

is authorized to discharge in accordance with the special and  
general conditions which follow.

Nancy Ellison  
Regional Manager  
Northwest Regional Office  
Department of Ecology

INDUSTRIAL

USEPA SF



1345231

SPECIAL CONDITIONS

S1.a. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for drydocks

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge flooding water and only those process waters detailed below to Lake Union subject to the following limitations and monitoring requirements; measurement of the surface water will be taken as the drydock is lowered to launch the vessel when the water is five (5) feet above the drydock deck. The sampling location shall be in line with the end of the wing wall.

EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
a. for drydock No.1				
Flow	88,650 cfpc	125,600 cfpc <sup>(1)</sup>	Monthly	Estimate
Turbidity		10 NTU	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab
b. for drydock No.2				
Flow	91,700 cfpc	127,000 cfpc <sup>(1)</sup>	Monthly	Estimate
Turbidity		10 NTU	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab
c. for drydock No.3				
Flow	91,700 cfpc	127,000 cfpc <sup>(1)</sup>	Monthly	Estimate
Turbidity		10 NTU	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab
d. for drydock No.6				
Flow	393,000 cfpc	565,200 cfpc <sup>(1)</sup>	Monthly	Estimate
Turbidity		10 NTU	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab

SI.a. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for drydocks  
(Continued)

EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
e. for drydock No.8				
Flow	91,700 cfpc	127,000 cfpc <sup>(1)</sup>	Monthly	Estimate
Turbidity		10 NTU <sup>(3)</sup>	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab
f. for drydock No.9				
Flow	152,650 cfpc	218,000 cfpc <sup>(1)</sup>	Monthly	Estimate
Turbidity		10 NTU <sup>(3)</sup>	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab
Ballast Water (see Section SS.i for other conditions)				
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Each Use	Grab
Bilge Water				
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Each Use	Grab
Turbidity		10 NTU <sup>(3)</sup>	Each Use	Grab
pH	Not less than 6.0 nor greater than 9.0		Each Use	Grab
Non Contact Cooling Water				
Oil and Grease	10 mg/L	15 mg/L <sup>(2)</sup>	Monthly	Grab
Temperature		21 °C <sup>(4)</sup>	Monthly	Grab

Note: (1) cfpc=cubic feet per raising of drydock.

(2) Discharges shall not have a visible oil sheen nor cause a visible oil sheen in the receiving waters.

(3) Turbidity shall be limited to 5 NTU above background conditions when the receiving water has a turbidity of 50 NTU or less. If the receiving water turbidity is greater than 50 NTU the allowable increase in turbidity is 20 per cent.

(4) When ambient water temperature, in water samples obtained 100 feet beyond the discharge outfall, under natural conditions exceed 21°C, no temperature increase will be allowed which will raise the receiving water temperature more than 0.3°C.

The Daily Average is defined as the average of the measured values obtained over a calendar month's time. The Daily Maximum is defined as the greatest allowable measured value for any calendar day.

S1.b. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for high pressure wash water

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge high pressure wash water to Lake Union subject to the following limitations and monitoring requirements; measurement of which will made from wastewater collected as the water runs off the hull. The average concentration shall be based on samples from at least three (3) areas of each vessel's hull. One area sampled shall be the stern in the vicinity of the rudder.

EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
Parameter	Maximum	Average	Minimum Frequency	Sample Type
Cu (T)	2.4 mg/L	1.50 mg/L	See Note (5)	Grab
Zn (T)	3.3 mg/L	2.80 mg/L	See Note (5)	Grab
Ni (T)	3.2 mg/L	2.00 mg/L	See Note (5)	Grab
Pb (T)	1.2 mg/L	0.76 mg/L	See Note (5)	Grab

Note: (5) High pressure wash water from each vessel shall be sampled unless the paint system has been documented to be a non significant metal source. To be non significant the highest measured concentration of total elemental metal, such as Cu (T), shall be no more than half the allowable average effluent limit. For documentation the paint system shall have been sampled from at least three vessels. Nonetheless, the high pressure wash water from every fourth vessel shall be sampled to ensure compliance.

To compile a data base on anti-fouling paint metal constituents reporting of results shall include the name of the vessel, the vessel dimensions, paint system removed including paint manufacturer, brand names or appropriate generic names and manufacturer identification codes.

If the paint manufacturer has information on the chemical composition of the paint system being removed and anticipated changes due to weathering and length of service, the Department will consider accepting the manufacturer's data as supplemental information which may justify reducing the sampling and analysis requirements of this section.

S1.c. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for non-contact water from a mobile salt box

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge non-contact cooling water from a mobile salt box to the Duwamish River, Lake Union, Elliot Bay or Puget Sound subject to the following limitations and monitoring requirements; measurement of which will be in the ambient water approximately 100 feet beyond the discharge outfall.

Parameter	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
	Marine Waters	Fresh Waters	Minimum Frequency	Sample Type
Temperature	16°C	21°C	each use	grab

Discharges into Lake Union shall not result in a temperature rise in water samples obtained 100 feet beyond the discharge outfall. When ambient water temperature under natural conditions exceed 21°C, no temperature increase will be allowed which will raise the receiving water temperature more than 0.3°C.

S1.d. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for a brine solution discharge from a mobile salt box

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge a Brine solution from a mobile salt box to Puget Sound subject to the following limitations and monitoring requirements; measurement of which will be in the salt box prior to discharge to Puget Sound:

Parameter	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
Temperature		16 °C	each use	grab
Total Dissolved Solids		10,000 mg/L	each use	grab

#### S1.e. AMBIENT WATER AND SEDIMENT MONITORING REQUIREMENTS

The permittee shall submit a monitoring program to the Department of Ecology (Northwest Regional Office) for approval and shall subsequently implement the approved monitoring program. The permittee shall monitor the ambient water and sediment conditions of the Lake in the immediate vicinity of the facility at least twice, there shall be approximately a three year interval between monitoring efforts if monitoring is only done twice. The objectives of the monitoring program will be to establish water and sediment quality chemical and biological characteristics to verify the effectiveness of the BMPs and to provide a basis for possible future modifications to the permit.

The monitoring program analyses will seek to identify: in the sediments, metals which are typical of sandblast grit, paint and solvents trapped or adsorbed by the sandblast grit; in the water column, paint or solvent chemical constituents and dissolved metals typically found in the sandblast grit and paint.

Sampling stations will be located to be representative of the water and sediment conditions at the facility. Sampling shall be sufficient for replicates at each station and for each matrix.

The monitoring plan shall be submitted ninety days after the permittee receives the Department of Ecology biomonitoring program guidelines.

#### S1.f. PROCESS WATER ANALYSIS REQUIREMENTS

The permittee agrees to complete at the earliest opportunity those analyses of process streams required by the permit application (also identified in TABLE 6 to TABLE 10 of the Fact Sheet) which have not yet been done. Within 60 days of the analysis the permittee shall forward to the Department of Ecology (Northwest Regional Office) a laboratory analysis report detailing the findings as required in section S2.c and S2.d.

When shipyard activities are to result in a discharge which has not yet been authorized in the permit or analyzed, a short term modifications of the water quality standards, WAC 173-201-035(8) e, shall be obtained from the Department of Ecology (Northwest Regional Office). Sampling, analysis and reporting shall be a condition of the short term modification of the water quality standard.

## S2. MONITORING AND REPORTING

The permittee shall monitor the operations and efficiency of all Best Management Practices, the pollution control facilities and the quantity and quality of the waste discharged. Monitoring shall include photographs to document the extent of each drydock clean up. Photographic records shall be maintained on site to document the use of additional measures taken to control dust and overspray such as when large vessel or multiple vessels are drydocked and extend over the end of the drydock pontoon deck. A record of all such data shall be maintained. The permittee shall monitor the parameters as specified in Condition S1 of this permit. After one year the monitoring requirements and results will be reviewed and revised as necessary.

### a. Reporting

Monitoring results obtained during the previous month, unless otherwise directed by the department, shall be summarized and reported on a form provided or approved by the department. The report shall be submitted no later than the 15th day of the month following the completed reporting period. The report shall be sent to the Northwest Regional Office of the Department of Ecology, 4350 - 150th Avenue N.E., Redmond, Washington 98052. Monitoring shall be started on the issuance date of this permit.

### b. Records Retention

The permittee shall retain for a minimum of three years all records of monitoring activities and results, including all reports of recordings from continuous monitoring instrumentation. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the director.

### c. Recording of Results

For each measurement or sample taken, the permittee shall record the following information: (1) the date, exact place (a drawing or photograph of the location is preferred), and time of sampling; (2) the date the analyses were performed; (3) who performed the analyses; (4) the analytical techniques or methods used; and (5) the results of all analyses.

S2. MONITORING AND REPORTING (continued)

d. Representative Sampling

Samples and measurements taken to meet the requirements of this condition shall be representative of the volume and varying characteristics of the monitored discharge. Representative sampling shall include sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance related conditions affecting effluent quality.

e. Test Procedures

All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless approved otherwise in writing by the Department, conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants, contained in 40 CFR Part 136, as published in the Federal Register on 26 October 1984 and as amended in the Federal Register of 4 January 1985.

- f. The department may establish specific monitoring requirements beyond those identified in section S1 of this permit's special conditions by permit modification or administrative order.



S3. SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

Within six months of issuance of the permit the permittee shall file a copy of their Spill Prevention Control and Countermeasure Plan with the Department of Ecology, Northwest Regional office. This plan shall include information and procedures relative to the prevention of spills and unplanned discharges of oil and hazardous materials such as:

- (1) A description of the reporting system which will be used to alert responsible facility management and appropriate legal authorities.
- (2) A description of facilities (including overall facility plot) which prevent, control, or treat spills and unplanned discharges and a compliance schedule to install any necessary facilities in accordance with the approved plan.
- (3) A list of all hazardous materials used, processed, or stored at the facility which may be spilled directly or indirectly into state waters.

Submittal of this plan, in accordance with these requirements, does not relieve the permittee from compliance with, nor ensure compliance with, the federal spill prevention requirement contained in 40 CFR Part 112. Oil spill prevention, control, and counter-measure plans prepared in accordance with the above federal requirements may be used in partial fulfillment of this permit condition.

## S4. BEST MANAGEMENT PRACTICES FOR YARD OPERATIONS AND MAINTENANCE

- a. The yard area shall be cleaned on a regular basis to minimize the possibility that runoff will carry sandblasting material or other debris into the receiving water. Clean-up of areas contributing runoff shall consist of mechanical or manual methods to sweep up and collect the debris. Collected sandblasting debris shall be stored with the spent grit. The spent sand blasting grit, dust and other debris shall not accumulate to an extent that could be judged to be more than a minor deposition by vehicular or pedestrian traffic between regular clean up efforts.
- b. Liquid products intended for industrial uses, including but not limited to paints, solvents, oils, acids and caustic solutions, shall be stored to prevent entry to waters of the state. When such liquids are not in use storage will be behind dikes on durable impervious surfaces, such as concrete or treated asphalt. Additionally, waste liquids shall either be stored under cover or in a closed storage vessel.
- c. All metal finishing chemical solution, caustic wash, and rinse-water tanks shall be stored in diked areas with drains to intercept contained overflows and spills. The intercepted chemical spill shall be recycled back to the chemical solution tank. It must be handled or disposed of in such manner as to prevent its discharge into state waters.
- d. No discharge of oil or hazardous material to state waters is permitted, except as specifically authorized in this permit. However, in the event of an accidental discharge of oil or hazardous material into waters of the state or onto land with a potential for entry into state waters, representatives of this department and the United States Coast Guard shall be notified immediately.
  1. Clean up efforts shall commence immediately and be completed as soon as possible, taking precedence over normal work, and shall include proper disposal of any spilled material and used clean up materials.
  2. Cleanup of oil/hazardous material spills shall be in accordance with an approved Spill Prevention Control and Countermeasure Plan.
  3. No emulsifiers or dispersants are to be used in waters of the state without approval from the Director of the Department of Ecology.

S4. BEST MANAGEMENT PRACTICES FOR YARD OPERATIONS AND MAINTENANCE  
(continued)

- e. Drip pans or other protective device shall be required for all oil transfer operations to catch incidental spillage and drips from hose nozzles, hose racks, drums or barrels.
- f. Dust and overspray from abrasive blasting and painting in yard facilities shall be controlled with structures or drapes to the extent feasible to minimize the spreading of wind blown materials. Frequent clean up of these areas shall be accomplished to prevent abrasive blasting waste from being washed into storm sewers or adjacent waterway.
- g. The mixing of paints and solvents shall be carried out in locations and under conditions such that no spill shall enter state waters.
  - 1. Drip pans or other protective devices shall be required for all paint mixing and solvent transfer operations, unless the mixing operation is carried out in controlled areas away from storm drains, surface waters, shorelines and piers.
  - 2. Paint and solvent spills shall be treated as oil spills and shall be prevented from reaching storm drains or deck drains and subsequent discharge into the water.

S5. BEST MANAGEMENT PRACTICES FOR DRYDOCK AND VESSEL OPERATIONS AND MAINTENANCE

- a. Control of Large Solid Materials. Floatable and low density waste such as wood, plastic, miscellaneous trash such as paper, insulation, and packaging etc., shall be removed from the drydock floor prior to flooding or sinking. Large high density material may remain in place when between the wing walls of the drydock.

The sediment traps of those drydocks having drainage systems shall be inspected on a monthly basis and cleaned as necessary to ensure the interception and retention of solids entering the drainage system.

- b. Control of Paint Dust and Abrasive Blasting Debris. Dust and overspray shall be prevented from falling into the water to the degree feasible during abrasive blasting and spray painting of vessels and modules. Feasible methods of control, when appropriate, include plastic barriers beneath the hull, between the hull and the wing walls of the drydock and plastic barriers hung from the the flying bridge of the drydock, from the bow or

55. BEST MANAGEMENT PRACTICES FOR DRYDOCK AND VESSEL OPERATIONS AND MAINTENANCE (continued)

stern of the vessel or from temporary structures erected for that purpose. The bottom edge of tarpaulins and plastic sheeting shall be weighted to remain in place during a light breeze. When sandblasting vessel superstructures, plywood and/or plastic sheeting shall be used to cover openings and open areas between decks including but not limited to scuppers, railings, freeing ports, ladders, and doorways.

Consideration shall also be given other feasible innovative procedures as appropriate to improve effectiveness of controls.

- c. Clean up of Blasting Debris and Spent Paint. Clean-up of spent paint, paint chips, protective coating materials and abrasive shall be undertaken as part of the repair or production activities to prevent their entry into state waters. Mechanical clean-up may be accomplished by mechanical sweepers, front end loaders, vacuum cleaners or other innovative equipment. Manual methods include the use of shovels and brooms. Innovations and procedures which improve the effectiveness of clean-up operations shall be adopted where they are feasible, appropriate and can be demonstrated as preventing the discharge of solids to the water. Those portions of the drydock floor which are reasonably accessible shall be "scraped or broomed clean" using shovels to remove spent abrasive prior to flooding.

Oil contaminated sand shall be removed from the drydocks as soon as possible, and in all cases prior to submersion of the drydock.

After a vessel has been removed from the drydock and the dock has been raised for repositioning of the keel and bilge blocks, the remaining areas of the floor which were previously inaccessible shall be cleaned by scraping or broom cleaning prior to the introduction of another vessel into the drydock. The requirement to clean the previously inaccessible areas shall be waived either in an emergency situation or when another vessel is ready to be introduced into the drydock within eight (8) hours. Nonetheless, while the bilge blocks and keel blocks are being repositioned cleaning of the previously inaccessible areas will continue as long as practicable.

55. BEST MANAGEMENT PRACTICES FOR DRYDOCKS AND VESSEL OPERATIONS AND MAINTENANCE (Continued)

- d. Oil, Grease, and Fuel Spills. During the drydocked period oil, grease, or fuel spills shall be prevented from reaching waters of the state. Clean-up shall be carried out promptly after an oil or grease spill is detected. Oil containment booms shall be conveniently stored so as to be immediately deployable in the event of a spill.
- e. Paint and Solvent Spills. Paint and solvent spills shall be treated as oil spills and segregated from discharge water. Spills shall be contained until clean-up is complete. Mixing of paint shall be carried out in locations and under conditions such that no spill shall enter state waters. The use of drip pans shall be required whenever paints and solvents are mixed on the drydock.

The amount of paint stored on the drydock floor shall be kept at a minimum not to exceed usage of one shift and shall be delivered in a timely manner to minimize paint storage time on the drydock.

- f. Segregation of Wastewater Flows in Drydocks. The various process wastewater streams shall be segregated from the sanitary wastes.
- g. Contact Between Water and Debris. Shipboard cooling and process water shall be directed so as to minimize contact with spent abrasive, paint, and other debris. Contact of spent abrasive and paint with water will be reduced by proper segregation and control of wastewater streams. When debris is present, hosing of the dock should be minimized. When hosing is used as a removal method, appropriate methods should be incorporated to prevent accumulation of debris in drainage systems and to promptly remove it from such to prevent its discharge with wastewater.
- h. Maintenance of Hoses, Soil Chutes, and Piping. Leaking connections, valves, pipes, hoses and soil chutes carrying either water or wastewater shall be replaced or repaired immediately. Soil chute and hose connections to vessels and to receiving lines or containers shall be tightly connected and as leak free as practicable.
- i. Bilge and Ballast Water. Bilge and ballast water discharges shall not exceed an oil and grease concentration of fifteen (15) milligrams per liter and shall not cause any visible oil sheen in the receiving waters.

Ballast water shall not be discharged to state waters if solvents, detergents, or other additives have been added unless a state water quality variance has been granted specific to that instance.

S6. SOLID WASTE DISPOSAL

- a. Spent sandblasting debris and spent grit shall be stored in a manner that will prevent its entry or the entry of leachate into the receiving waters.
- b. The permittee shall handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface waters.
- c. The permittee shall not permit leachate from its solid waste material to enter state surface water without providing all known, available and reasonable methods of treatment, nor permit such leachate to cause any adverse effect on state ground waters. The permittee shall apply for a permit modification as may be \_\_\_\_\_ required for such discharges.
- d. Within six months after issuance of this permit, the permittee shall submit to the department a plan for the handling and disposal of all solid waste material generated at the plant site. All such plans shall be reviewed and approved by the department to insure compliance with the plan as approved by the department.

## S7. OTHER REQUIREMENTS

- a. If new facilities are necessary to comply with any condition of this permit, plans and specification for such facilities shall be received for review and approval by the Department of Ecology, as required by WAC 173-240-110, within six months of the issuance of this permit. Construction shall be accomplished within a reasonable time after approval.
- b. Sanitary sewage is to be discharged into the sanitary sewers.
- c. Boiler blowdown effluent shall be discharged into the sanitary sewers.
- d. All requirements and ordinances of the Municipality of Metropolitan Seattle (METRO) pertaining to the discharge of wastes into the sanitary sewer are hereby made a condition of this permit.
- e. If the permittee intends to treat any of the drydocks, from the keel to the maindeck, to control the growth of marine organisms, a written request shall be submitted to this department for review and approval. The request shall detail the proposed treatment method and reasons for its selection over other available treatment alternatives. The department will review the proposed treatment method and the decision whether to approve the proposed method will be based on an evaluation of the probable environmental impacts due to the proposed activity.
- f. Owners of vessels in drydocks or under repair pier-side shall be notified in writing by the permittee that federal and state regulations prohibit the discharge of sewage (this includes discharges from the ship's galley while at pier-side) into the waterways. If untreated sanitary wastes from vessels in drydocks or under repair pier-side are to be discharged, the discharge shall be to either the sanitary sewer or into holding tanks that are periodically emptied into a sanitary sewer system. The permittee will make available at all times a list of contractors providing disposal services and any other alternatives the permittee may make available for complying with these regulations such as holding tanks and pumpout facilities.

GENERAL CONDITIONS

- G1. All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.
- G2. The permittee shall at all times properly operate and maintain all facilities and systems of collection, treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit.
- G3. The permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.
- G4. If, for any reason, the permittee does not comply with or will be unable to comply with any of the discharge limitations or other conditions specified in the permit, the permittee shall, at a minimum, provide the department with the following information:
  - a. A description of the nature and cause of noncompliance, including the quantity and quality of any unauthorized water discharges;
  - b. The period of noncompliance, including exact dates and times and/or the anticipated time when the permittee will return to compliance; and
  - c. Steps taken or to be taken to reduce, eliminate, and prevent recurrence of the noncompliance.

In addition, the permittee shall take immediate action to stop, contain, and clean up any unauthorized discharges and take all reasonable steps to minimize any adverse impacts to waters of the state and correct the problem. The permittee shall notify the department immediately by telephone so that an investigation can be made to evaluate any resulting impacts and the corrective actions taken to determine if additional action should be taken.

In the case of any discharge subject to any applicable toxic pollutant effluent standard under Section 307 (a) of the Clean Water Act, or which could constitute a threat to human health, welfare, or the environment, 40 CFR Part 122 requires that the information specified in items G4.a., G4.b, and G4.c, above, shall be provided not later than 24 hours from the time the permittee becomes aware of the circumstances. If this information is provided orally, a written submission covering these points shall be provided within five days of the time the permittee becomes



## 64. (continued)

aware of the circumstances, unless the department waives or extends this requirement on a case-by-case basis.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

65. The intentional bypass of wastes from all or any portion of a treatment works to the extent that permit effluent limitations cannot be met is prohibited unless the following four conditions are met:
- a. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the Clean Water Act and <sup>3</sup>authorized by administrative order;
  - b. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment down time, or temporary reduction or termination of production;
  - c. The permittee submits notice of an unanticipated bypass to the department in accordance with Condition 64. Where the permittee knows or should have known in advance of the need for a bypass, this prior notification shall be submitted for approval to the department, if possible, at least 30 days before the date of bypass (or longer if specified in the special condition);
  - d. The bypass is allowed under conditions determined to be necessary by the department to minimize any adverse effects. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

After consideration of the factors above and the adverse effects of the proposed bypass, the department will approve or deny the request. Approval of a request to bypass will be by administrative order under RCW 90.48.120.

66. The permittee shall allow an authorized representative of the department, upon the presentation of credentials and such other documents as may be required by law:
- a. To enter upon the permittee's premises where a discharge source is located or where any records must be kept under the terms and conditions of the permit;
  - b. To have access to and copy at reasonable times any records that must be kept under the terms and conditions of the permit;
  - c. To inspect at reasonable times any monitoring equipment or method required in the permit;
  - d. To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities required under the permit;
  - e. To sample at reasonable times any discharge of pollutants.
67. The permittee shall submit a new application or supplement to the previous application where facility expansions, production increases, or process modifications will (1) result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants, or (2) violate the terms and conditions of the existing permit.
68. After notice and opportunity for public hearing, this permit may be modified, terminated, or revoked during its term for cause as follows:
- a. Violation of any term or condition of the permit;
  - b. Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts by the permittee in the application or during the permit issuance process;
  - c. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit;
  - d. Information indicating that the permitted discharge poses a threat to human health or welfare;
  - e. A change in ownership or control of the source; or
  - f. Other cause listed in 40 CFR Part 122.62 and 122.63.

Permit modification, revocation and reissuance, or termination may be initiated by the department or requested by any interested person.

69. A permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under Condition G8. or 40 CFR Part 122.62 must report its plans, or such information, to the department so that a decision can be made on whether action to modify or revoke and reissue a permit will be required. The department may then require submission of a new application. Submission of such application does not relieve the discharger of the duty to comply with the existing permit until it is modified or reissued.
610. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the department shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.
611. Prior to constructing or modifying any wastewater control facilities, detailed plans shall be submitted to the department for approval in accordance with WAC 173-240. Facilities shall be constructed and operated in accordance with the approved plans.
612. All other requirements of 40 CFR 122.41 and 122.42 are incorporated into this permit by reference.
613. Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

**DRAFT**

FACT SHEET

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

APPLICATION NUMBER: WA-003086-4

FACT SHEET--APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE POLLUTANTS TO STATE WATERS PURSUANT TO THE PROVISIONS OF CHAPTER 90.48, REVISED CODE OF WASHINGTON AND THE FEDERAL WATER POLLUTION CONTROL ACT AS AMENDED.

APPLICANT: Marine Power and Equipment Co., Inc.  
1441 N. Northlake Way  
Seattle, Washington 98103

The Department of Ecology has tentatively determined to issue a permit, to discharge, to the above listed applicant subject to certain effluent limitations which may require the implementation of Best Management Practices, installation of treatment facilities, schedules of compliance and other conditions necessary to carry out the provisions of state and federal law. These proposed limitations, schedules and conditions are tentative.

PUBLIC COMMENT AND INFORMATION

Interested persons are invited to submit written comments regarding the proposed permit. Comments should be submitted within thirty days of the date of issuance of the public notice for this application. Comments should be sent to:

Washington State Department of Ecology  
Northwest Regional Office  
4350 - 150th Avenue N.E.  
Redmond, Washington 98052  
Attention: Richard A. Koch

If the comments received indicate significant public interest in the proposed permit or if useful information could be produced thereby, the director may hold a public hearing on the application. Public notice regarding any hearing will be circulated at least thirty days in advance of the hearing.

The application, proposed permit, and related documents are available for inspection and copying between the hours of 8:00 am and 4:30 pm weekdays at the aforementioned regional office of the department. A copying machine is available for use at a charge of 10 cents per copy sheet.

TECHNICAL INFORMATION

APPLICANT: Marine Power and Equipment CO., Inc.  
1441 N. Northlake Way  
Seattle, Washington 98103

APPLICATION NO.: WA-003086-4

LOCATION: Marine Power and Equipment CO., Inc.  
1441 N. Northlake Way  
Seattle, Washington 98103

ACTIVITY: Ship construction, repair, and conversion.

RECEIVING WATER: Lake Union (Lake Class). Due to the location of the facility, many shipyard activities are performed on or in structures which are on or over the water.

BACKGROUND: Marine Power and Equipment builds, converts, and repairs ships at its facility on the north shore of Lake Union. Shipbuilding and repair are discontinuous and at times unscheduled activities. Shipyard activities include paint removal, primarily by abrasive blasting; painting, welding, fabrication, testing of marine electrical equipment, cleaning and repair of marine equipment.

It was alleged in United States District Court Western District of Washington at Seattle, No. C85-382R, that Marine Power and Equipment had illegally discharged pollutants and refuse from the ship repair facility into Lake Union. In response to the allegations a Partial Consent Decree was signed by Marine Power and Equipment, the Environmental Protection Agency, and the Washington Department of Ecology. The Partial Consent Decree stipulates the implementation of appropriate Best Management Practices and prohibits the discharge of pollutants unless authorized by the NPDES permit.

WASTE SOURCES AND TREATMENT: Shipyard activities result in an accumulation of spent abrasive blasting grit, paint overspray, various cleaners and anti-corrosive compounds, paint chips, scrap metal, welding rods, wood, plastic, and miscellaneous trash such as paper and glass. Waste treatment practice rely on Best Management Practices (BMP's) to control product streams and associated waste streams.

Sources contributing wastewater flows are storm water run off and flooding of drydocks, cooling water, ballast water, pump testing, water washing, gray water, ship's sanitary waste, and engine bilge water. The ship's sanitary wastes, engine bilge water when over permit limits and oily wastes are collected and disposed of by a contracted disposal firm.

A mobile salt box is used for testing electrical components. The salinity of the brine solutions varies depending on the voltage and current requirements of the test. The maximum brine solution used is approximately 1/3rd that of Puget Sound.

Ship repair requires cleaning of pipe and small metal items. The solvent, caustic wash, and washwater tanks are contained behind berms or in drip pans. The liquids are recycled to minimize wastage and are not a discharge source.

FLOWS. Discharges from drydocks include cooling water, stormwater, drydock deflooding water, ship's ballast water, high pressure wash water, and runoff from the drydock surface during surfacing. Volumes vary, depending upon the size of the vessel docked, rainfall, the nature of the repair work, and the status of the vessel's equipment.

Information on flow provided in the permit application has been used for characterizing the extent of shipyard activity and is not a measure of waste generating activity. Estimates of water flow associated with different processes have been calculated based on the size of vessels worked on. Ecology provided guidance on methods for estimating flows on a consistent basis. Table 1 shows average and maximum flows from drydock deck run off based on three different storm events.

TABLE 1  
ESTIMATED AVERAGE AND MAXIMUM FLOWS FROM STORMWATER RUNOFF FROM EACH DRYDOCK FOR 2-YEAR STORM AND 10-YEAR STORM EVENTS ASSUMING RUNOFF COEFFICIENT OF 1.00. PRECIPITATION PER STORM EVENT IN THE SEATTLE AREA, FOR AVERAGE STORM I=0.50 INCH/24HOURS, FOR 2-YEAR STORM I=2.00 INCHES/24HOURS, FOR 10-YEAR STORM I=2.75 INCHES/24HOURS

Outfall	Surface Area (square feet)	Cubic Feet of Rain Per 24 hours Per Storm Event		
		Average Storm	2-Year Storm	10-Year Storm
001	9,374	391	1,562	2,148
002	7,300	304	1,217	1,673
003	7,300	304	1,217	1,673
004	25,620	1,067	4,270	5,871
005	7,300	304	1,217	1,673
006	10,683	445	1,780	2,448

Table 2 shows average and maximum flows from deck runoff calculated on the basis of submerging the drydock to recover a vessel. The volume of water contained above the pontoon deck is based on average and maximum submergence of the drydock. Generally, the drydock would only be submerged to the depth necessary to launch or load a vessel.

TABLE 2  
ESTIMATED AVERAGE AND MAXIMUM DECK RUNOFF FROM  
THE DRYDOCK FOR EACH DRYDOCK DEFLOODING

Drydock No.	Outfall	Deck Runoff (cubic feet)	
		Average	Maximum
1	001	88,650	125,600
2	002	91,700	127,000
3	003	91,700	127,000
6	004	393,000	565,200
8	005	91,700	127,000
9	006	152,650	218,000

Deflooding volumes, Table 3, are based on the tank capacities of the respective drydocks. Deflooding water is ambient water that has been used to alter the bouyancy of the drydock. It should be unaltered during use and generally does not remain in the bouyancy tanks long.

TABLE 3  
ESTIMATED AVERAGE AND MAXIMUM DISCHARGE FROM  
THE DRYDOCK BOUYANCY TANKS AFTER EACH DRYDOCK DEFLOODING

Drydock No.	Outfall	Deflooding Water (cubic feet)	
		Average	Maximum
1	001	32,750	81,810
2	002	38,760	100,550
3	003	38,760	100,550
6	004	125,750	308,174
8	005	38,760	100,550
9	006	68,190	150,880

Maximum volumes of ballast water which may be discharged (based on type of vessels using a drydock) from a vessel is shown in Table 4. Ballast water is usually discharged from the vessel before it is drydocked. Discharging ballast water prior to docking lessens the weight and draft of the vessel to be recovered by the drydock. Ballast water is obtained from ambient water. Ballast tanks generally require testing when repairs have been made upon them. For test purposes potable water is added to the tanks and subsequently discharged.

TABLE 4  
ESTIMATED MAXIMUM VOLUME OF BALLAST WATER THAT MIGHT BE EXPECTED TO BE  
DISCHARGED FROM ABOUT 1 IN 40 VESSELS USING EACH DRYDOCK

<u>Drydock No.</u>	<u>Outfall</u>	<u>Maximum Volume of Ballast Water (cubic feet)</u>
1	001	700
2	002	800
3	003	800
6	004	2,000
8	005	800
9	006	800

On board ship, cooling water discharges can occur from ship's equipment that requires cooling water. The cooling water may be steam condensate, lake water, or domestic potable water. Typical rates of use would be in the range of 2 to 10 gallons per minute.

Drydock discharges may also include high-pressure wash water. Domestic water is used for the high-pressure wash. Capacity of pumps in use for high pressure wash range up to 30 gpm and may supply water to multiple spray nozzles.

POTENTIAL CONTAMINANTS: The permit applicant is required to prepare and submit a list of potential contaminants. The list has been compiled from manufacturer lists of paint, cleaner and solvent chemical constituents. Also contributing to the contaminant list were analysis of the abrasive blasting material before and after use and analysis of several process water streams. Obtaining data from analysis of ship's ballast water and high pressure wash water is dependent on the occurrence of an infrequent event and may not be available at time of permit issuance.

TABLE 5  
AMBIENT WATER QUALITY IN LAKE UNION

(not available as of February 12, 1987)  
(Due to Litigation)



TABLE 6

LIST OF POTENTIAL CONTAMINANTS TO BE ANALYZED FOR. LIST IS BASED ON  
MANUFACTURER'S PRODUCT DATA SHEETS AND PRELIMINARY LABORATORY ANALYSIS  
OF ABRASIVE BLASTING GRIT.

n-butyacetate	Chlorine
Xylene	Nitrate-Nitrite as N
Xylol	Tot. Org. Nitrogen as N
Oil and grease	Total Phosphorus as P
Surfactants	Aluminum
Barium	Boron
Cobalt	Iron
Magnesium	Molybdenum
Manganese	Tin
Titanium	Arsenic
Beryllium	Cadmium
Copper	Lead
Mercury	Nickel
Silver	Zinc
Phenols	Benzene
Ethylbenzene	Toluene
Vinyl Chloride	Anthracene
Benzo Anthracene	Benzo Pyrene
3,4 Benzo-fluoranthene	Benzo-Perylene
Benzo Fluoranthene	Chrysene
Fluoranthene	Indeno Pyrene
Naphthalene	Phenanthrene
Pyrene	

TABLE 7

LIST OF CONTAMINANTS BASED ON  
LABORATORY ANALYSIS OF PROCESS WATER STREAMS  
(Deflooding water)

Concentration	Concentration
mg/L	mg/L

(not available as of February 12, 1987)  
(Due to Litigation)

TABLE 8  
LIST OF POTENTIAL CONTAMINANTS BASED ON  
MANUFACTURER'S PRODUCT DATA SHEETS AND LABORATORY ANALYSIS OF  
ABRASIVE BLASTING GRIT AND PROCESS WATER STREAMS  
(Stormwater runoff from a drydock)

Concentration mg/L	Concentration mg/L
(not available as of February 12, 1987) (Due to Litigation)	

TABLE 9  
LIST OF CONTAMINANTS BASED ON  
LABORATORY ANALYSIS OF PROCESS WATER STREAMS  
(Ship's ballast water<sup>1,2</sup>)

Concentration mg/L	Concentration mg/L
(not available as of February 12, 1987) (Due to Litigation)	

1. Due to infrequency of drydocking a vessel with ballast water on board data may not be available at time of permit issuance.
2. Sampling of one (or two) ship's ballast water not be representative of the other vessels which may occasionally be drydocked with ballast water aboard.

TABLE 10  
LIST OF CONTAMINANTS BASED ON  
LABORATORY ANALYSIS OF PROCESS WATER STREAMS  
(cooling water)

Concentration mg/L	Concentration mg/L
(not available as of February 12, 1987) (Due to Litigation)	

TABLE 11  
LIST OF CONTAMINANTS BASED ON  
LABORATORY ANALYSIS OF PROCESS WATER STREAMS  
FROM A HIGH PRESSURE WASHING OF THE FERRY TILLAKUM  
ON 4/7/86 AT THE FOX AVENUE FACILITY  
(SAMPLING AND ANALYSIS BY DEPARTMENT OF ECOLOGY)

Pollutant	Concentration ,ug/L		
	sample 1	sample 2	average
Cu (T)	90,200	60,100	75,150
Cu (D)	5,910	2,210	4,060
Zn (T)	10,630	7,290	8,960
Zn (D)	729	212	470.5
Fe (T)	31,620	7,680	19,650
Ni (T)	252	182	217
Ni (D)	21	22	22.5
Cr (T)	64	33	48.5
Cr (D)	<1	<1	<1
Cd (T)	5.2	10.1	7.7
Cd (D)	1.0	2.6	1.8
Pb (T)	497	451	474
Pb (D)	8	<1	4.5 to 4.0

High pressure water washing (hydroblasting) is an alternative to dry abrasive blasting for removing paint, rust, and marine growth from the surface of ship hulls. High pressure water washing is being used locally to remove marine growth and anti-fouling paints from vessel hulls without necessarily removing the anti-corrosive paint as well. In some instances it may be possible to collect and and remove paint particulates from the waste water.

Sampling of the waste water was done by both the Department and the permittee. The data base at present is to limited to provide any correlations between various total elemental metal concentrations in anti-fouling paints. If a correlation is found it may be appropriate to test for one representative metal with a periodic check to verify the correlation is still valid.

Table 11 above is the result of sampling by the Department and Table 12 below is the result of permittee sampling of hydroblasting the anti-fouling paint and marine growth form vessel hulls.

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The permittee had a contractor obtain water samples from four vessels with different paint systems. However, the results were not complete and for three vessels did not report the results as either total metal or dissolved. It will be assumed that the results are total metal. Regardless, the analysis obtained by the contractor, shown in TABLE 12 below, indicate that metal concentrations will vary with the vessel, paint system and the condition of the hull.

The results, TABLE 11 above and TABLE 12 below for Pb, do indicate that in some cases water quality standards could be violated and effluent limits for the metal content of the high pressure wash water are appropriate. The area of the vessel most likely to cause a water quality violation appears to be the result of washing anti-fouling paints from the stern area of a vessel with high pressure water. Pollution control may mean collecting the wash water from some areas of some vessel.

Applicable effluent limits were established by reviewing various categorical standards from 40 CFR, those expressing the limits in mg/L concentrations. The range of effluent limits and the average are shown in TABLE 13.

TABLE 12  
LIST OF CONTAMINANTS BASED ON  
LABORATORY ANALYSIS OF PROCESS WATER STREAMS  
FROM A HIGH PRESSURE WASHING OF THE VESSEL BULLDOG  
ON 10/7/86 AT THE LAKE UNION FACILITY  
(SAMPLING AND ANALYSIS BY PERMITTEE'S CONTRACTOR)

Pollutant	Concentration, ug/L, for vessels			
	Bulldog	No Name	Retriever	Beluga
Cu (T)	830			
Cu (D)	70			
Zn (T)	190	78	100	52
Zn (D)	90			
Ni (T)	200			
Ni (D)	150			
Cr (T)	140	16	21	60
Cr (D)	60			
Cd (T)	100	139	80	74
Cd (D)	70			
Pb (T)	660	330	53	330
Pb (D)	250			

TABLE 13  
SUMMARY OF CATEGORICAL STANDARDS FOR  
EFFLUENT CONCENTRATION LIMITS FROM 40 CFR  
(Concentration in mg/L)

Pollutant	n	Max. Eff. Limits		Avg. Eff. Limits	
		$\bar{X}$	Range	30 day Avg.	4 day Avg.
Cu (T)	8	2.4	4.5 to 3.0	1.1	1.5
Zn (T)	4	3.3	5.0 to 1.5	1.5	2.8
Ni (T)	7	3.2	6.4 to 1.1	1.5	2.0
Pb (T)	4	1.2	2.9 to 0.6	0.56	0.76

$Avg_{30}/Max=0.63$  and  $Avg_4/Max=0.464$  were multiplied by the average max. concentration for a metal to calculate the respective average concentrations.

TREATMENT: The draft EPA development document for Shipbuilding and Repair, EPA 440/1-79/076-b, recommends BMP's as the primary method of controlling waste discharges to the waters of the state. The BMP's achieve pollution control through careful management of the product streams and segregation of potential pollutants in the waste streams. The rationale for the reliance on BMP's is found in the EPA document's conclusion that there was "no apparent significant data during, before and after clean-up procedures were initiated." Hence, the EPA was led to also conclude that "This industry is such that numerical effluent limitations are impractical and difficult to apply in a manner which could be monitored; therefore, guidance is provided for controlling wastewater discharges which require that best management requirements be applied."

The EPA came to these conclusions because there are still too many unknowns/constituents to make any judgments about what may be measured during monitoring. Variables are: What abrasive was used in blasting the vessel? What type of paint was removed and what was its chemical make up at the time of the abrasive blasting? What amount of paint overspray fell to the spent grit and what was the chemical make up after volatilization? What oil or grease may have been spilled while the vessel was drydocked? What is the chemistry of the lake, river or harbor water used for docking or launching the vessel? What is the leachability of the paint or grit constituents when wetted?

Besides the variability of the constituents monitored, where to monitor is complicated by the drydock itself. Water enters and exits at the ends and depending on the drydock water may also enter and exit along the sides. The velocity of water through the various side openings precludes manual monitoring and the availability of automated monitoring equipment presently precludes this option as well.

The drydock is the focal point of shipyard activity and is the principal source of pollutants. The development document for Shipbuilding and Repair recognizes that drydock activities are not amenable to quantitative measurements. Construction features vary considerably from drydock to drydock. Features cited in the development document making access difficult are the height of bilge blocks and raised bilge block slides. Short bilge blocks, with a height of less than 3 ft., are common locally. The development document states that short bilge blocks severely restrict access for manual clean up and those mechanized clean up techniques currently available. Day to day shipyard operations also vary considerably depending on the ship being repaired or converted. Pertinent variables for pollutant loading include type and size of vessel, extent of blasting required, paint system removed, and the paint system applied. All of these variables vary from ship to ship.

BMP's for yard activities were compiled from the draft EPA development document for Shipbuilding and Repair and previous permits written or drafted for other local shipyards. Ecology has expanded the BMP's beyond their original content. The BMP's rely on Best Professional Judgement to interpret the intent of each section of the BMP's. To eliminate some of the subject interpretation of the intent of a BMP examples of feasible methods of pollution control were offered where appropriate. Ecology recognizes that the examples are not exhaustive and that the definition of feasible will change as more experience is gained and alternative pollution control techniques are tried and improved upon.

Controlling the loss of pollutants removed from a vessel by high pressure washing of the hull may require the collection and treatment of the wash water to at least remove suspended solids

EFFLUENT LIMITS: Flow limits are based on the water flow off the drydock during deflooding operations.

Oil and grease limits are based on the a limit of no visible oil sheen on the surface of the water and the appropriate numerical limit.

The limits for pH, turbidity and temperature are from the state water quality standard, WAC 173-201-045 (5) Lake Class and WAC 173-210-080 (57) Lake Washington Ship Canal from Government Locks to Lake Washington; Lake Class.

The characteristic uses of Lake Class water are water supply for the public, industry and agriculture; the spawning, rearing, migration and harvesting of fish and shellfish, wildlife habitat, recreation including primary contact activities, commerce and navigation. Compliance with the permit conditions should not result in degradation of these uses.

Ambient water and sediment quality monitoring is intended to verify that shipbuilding and repair activities are not violating water quality standards. The permit will be modified if violations of the water quality standards are found and determined to be due insufficiently stringent permit conditions.

Effluent limits for the storm drain discharge have not been made a condition of this permit. The storm water runoff is predominately from Northlake Way and adjoining property fronting the roadway and is not indicative of the operations and activities conducted by the permittee. The discharge is more appropriately covered in a general storm water discharge permit as may be issued to the City of Seattle in the future.

GENERAL CONDITIONS: The conditions in paragraphs 63 and 65 of the GENERAL CONDITIONS do not presently and are not anticipated by the permittee or the permit writer to be applicable to the permitted facility.

MONITORING AND REPORTING: A monthly monitoring report is to be submitted each month to this agency. Adequate testing for verifying the adequacy of compliance with the BMP's is a requirement of this permit. Therefore monitoring of ambient water conditions and sediment conditions shall be included as a condition of this permit. The permittee is to submit a monitoring plan to the Department of Ecology following guidance of section S1.d.

To ensure the completeness of the permit, the permittee is to make every reasonable effort to supply the remaining background analytical data contained in TABLE 5 and TABLE 6 to TABLE 10 at the earliest possible opportunity.

The Department of Ecology is developing a guidance document for a Toxics Monitoring Program incorporating biological monitoring. At the appropriate time the permit will be modified to include a biological toxics monitoring condition.

RECOMMENDATIONS: A five year permit should be issued which requires the implementation of BMP's.

As it becomes appropriate, the permit conditions and limitations will be modified as a result of continued monitoring study and subsequent operational changes approximately eighteen months after issuance of this permit and as later experience or conditions warrant and guidance policy dictates.